

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A fine channel device comprising:

a fine channel provided with at least two inlet ports for feeding fluid, inlet channels communicated with the inlet ports, a confluent portion communicated with the inlet channels, a branch portion communicated with the fine channel, from which at least two outlet channels are branched to feed predetermined amounts of fluid, and outlet ports communicated with the outlet channels,

wherein the fine channel is provided with a plurality of partition walls arranged along a boundary formed by at least two kinds of fluid fed from the inlet ports so as not to cause mutual contamination of fluid,

wherein each partition wall of the plurality of partition walls has an upper edge that is elongated and extends along a line parallel to a fluid flow path within the fine channel,

wherein the plurality of partition walls are spaced apart at intervals in a flowing direction of fluid by a distance that is greater than an elongated length of each partition wall, and

wherein intervals between the partition walls are present along the entire length of the fine channel except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel.

2. (Previously Presented) The fine channel device according to claim 1, wherein in the plurality of partition walls, the partition wall located closest to the confluent portion of the fine channel is connected to the confluent portion, and wherein intervals between adjacent

partition walls in the vicinity of the inlet channels are smaller than intervals between adjacent partition walls in a central portion of the fine channel.

3. (Previously Presented) The fine channel device according to claim 1, wherein the height of partition walls is substantially the same as the depth of the fine channel.

4. (Previously Presented) The fine channel device according to claim 1, wherein partition walls are provided at positions apart from the confluent portion and the branch portion.

5. (Previously Presented) The fine channel device according to claim 1, wherein in the plurality of partition walls, the partition wall located closest to the branch portion of the fine channel is connected to the branch portion, and wherein intervals between adjacent partition walls in the vicinity of the outlet channels are smaller than intervals between adjacent partition walls in a central portion of the fine channel.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) The fine channel device according to claim 1, wherein a portion of the fine channel has a shape other than a straight shape, and ~~the partition wall in~~ said portion includes a wall arranged along the boundary that extends from the vicinity of a portion originating a non-straight portion of fine channel to the vicinity of a portion ending the non-straight portion of fine channel.

9. (Canceled)

10. (Previously Presented) The fine channel device according to claim 1, wherein in the vicinity of the inlet channels and/or the outlet channels of the fine channel, at least two

partition walls are connected continuously in a flowing direction of fluid.

11. (Previously Presented) The fine channel device according to claim 1, wherein a plurality of projections are formed at the inner wall of the fine channel partitioned by partition walls to such an extent capable of maintaining a flow of fluid.

12. (Previously Presented) The fine channel device according to claim 1, wherein said at least two inlet ports for feeding fluid, the inlet channels communicated with the inlet ports, said at least two outlet channels and outlet ports communicated with the outlet channels are arranged so that the flowing direction of either one of at least two kinds of fluid fed in the fine channel is opposite to the flowing direction of the other of said at least two kinds of fluid fed adjacently in the fine channel.

13. (Previously Presented) The fine channel device according to claim 1, wherein the inner wall at one side of the fine channel partitioned by partition walls has hydrophilic/hydrophobic properties.

14. (Previously Presented) The fine channel device according to claim 13, wherein the inner wall of made of a material that is configured to have hydrophilic properties that are different from hydrophilic properties of a fluid to be fed into the fine channel.

15. (Previously Presented) The fine channel device according to claim 1, wherein a film having fine pores a diameter of which is smaller than any distance between adjacent partition walls is provided between adjacent partition walls in a flowing direction of fluid.

16. (Original) The fine channel device according to claim 15, wherein the film is made of a polymeric material and/or an inorganic material.

17. (Previously Presented) The fine channel device according to claim 1, wherein a

metallic film is disposed in the entire or a part of the inner surface of the fine channel and/or the wall surface of the partition walls.

18. (Original) The fine channel device according to claim 17, which further comprises a current supply means and/or a voltage supply means for the metallic film.

19. (Previously Presented) The fine channel device according to claim 1, which further comprises a circulating channel to feed fluid discharged from an outlet port to an inlet port.

20. (Original) The fine channel device according to claim 19, which further comprises a reservoir tank communicated with the circulating channel and a pump in order to store the supplied fluid temporally.

21. (Previously Presented) The fine channel device according to claim 1, which further comprises means for supplying energy to fluid flowing the fine channel.

22. (Original) The fine channel device according to claim 21, wherein said means for supplying energy to fluid is a heating device and/or a light irradiation device.

23. (Currently Amended) A fine channel device comprising a plurality of fine channels each as described in any one of claims 1 to 5, [[7,]] 8, and 10 to 17 formed two-dimensionally or three dimensionally.

24. (Currently Amended) A fine channel device comprising;  
a fine channel provided with at least two inlet ports for feeding fluid, inlet channels communicated with the inlet ports, a confluent portion communicated with the inlet channels, a branch portion communicated with the fine channel, from which at least two outlet channels are branched to feed predetermined amounts of fluid, and outlet ports communicated with the

outlet channels,

wherein the fine channel is provided with a plurality of partition walls, each having a height substantially the same as the depth of the fine channel, arranged along a boundary formed by at least two kinds of fluid fed from the inlet ports so as not to cause mutual contamination of fluid,

wherein each partition wall of the plurality of partition walls has an upper edge that is elongated and extends along a line parallel to a fluid flow path within the fine channel,

wherein the plurality of partition walls are spaced apart by a distance that is greater than an elongated length of each partition wall, and

wherein intervals between the partition walls are present along the entire length of the fine channel except in the vicinity of the confluent portion and the vicinity of the branch portion of the fine channel.

25. (Withdrawn) A chemically operating method wherein a fine channel device described in any one of claims 1, 5 and 24 is used to mix by molecular diffusion at least two kinds of fluid contacting through the partition walls in the fine channel.

26. (Withdrawn) The chemically operating method according to claim 25, wherein fine particles are mixed to at least one of said at least two kinds of fluid, and the fluid is stirred while the fluid boundary is maintained to accelerate the mixing.

27. (Withdrawn) A chemically operating method wherein a fine channel device described in any one of claims 1, 5 and 24 is used to cause a chemical reaction of at least two kinds of fluid contacting through the partition walls in the fine channel.

28. (Withdrawn) A chemically operating method wherein a fine channel device

described in any one of claims 1, 5 and 24 is used to make an extracted solvent contact with an extracting solvent through the partition walls in the fine channel to extract an extracted substance by phase transfer.

29. (Withdrawn) A chemically operating method wherein a fine channel device described in any one of claims 1, 5 and 24 is used to separate at least two kinds of fluid contacting through the partition walls in the fine channel.

30. (Withdrawn) The chemically operating method according to claim 29, wherein at least one kind of separated fluid is circulated to feed it again to an inlet port.

31. (Withdrawn) The chemically operating method according to claim 30, wherein the separated fluid is discharged from an outlet port through an outlet channel, and the discharged fluid is fed again to an inlet port.

32. (Withdrawn) A chemically operating method wherein a fine channel device described in any one of claims 1, 5 and 24 is used to supply energy to fluid flowing in the fine channel.

33. (Withdrawn) The chemically operating method according to claim 32, wherein said energy is heat and/or light.

34. (Canceled)